

STATE OF VERMONT
PUBLIC SERVICE BOARD

EEU-2011-02)
)
Order approving updated avoided costs for use by the)
Energy Efficiency Utilities)

Order entered: 10/17/2011

ORDER RE: EEU AVOIDED COSTS

I. INTRODUCTION

In this Order, the Public Service Board ("Board") approves updated avoided costs for use by the Energy Efficiency Utilities ("EEUs").¹ In addition, the Board establishes a future process for the review and updating of the transmission and distribution ("T&D") component of avoided costs.

II. BACKGROUND

In Docket 5980, the Board accepted a proposal that relied on the Vermont Department of Public Service ("Department") to propose updates for avoided costs. Under the process set forth in that Docket, the Board would then provide an opportunity for other parties to file comments and request a technical workshop before ruling on the proposed changes.

On August 4, 2011, the Department filed a recommendation that the Board approve updated avoided costs for use by the EEUs. Specifically, the Department recommends that the Board adopt the avoided costs as presented in the recently completed Avoided Energy Supply Costs in New England ("AESC") final report.²

1. Vermont's EEUs are Efficiency Vermont and the City of Burlington Electric Department. In Docket 7676, the Board is investigating the appointment of an entity to provide natural-gas efficiency service and considering whether Vermont Gas Systems, Inc. ("VGS") should be appointed as an EEU; regardless of the status of VGS as an EEU, it has agreed to utilize the avoided costs set by the Board.

2. *Avoided Energy Supply Costs in New England: 2011 Report*, Synapse Energy Economics, Inc., July 21, 2011.

On August 22, 2011, Board staff conducted a workshop to discuss the proposed avoided costs. Workshop participants were provided with an opportunity to file comments following the workshop.³

On August 30, 2011, the Department filed its final recommendation for 2011 avoided costs which included references to specific pages and columns in the 2011 AESC final report. On September 2, 2011, the Department filed its responses to workshop participants' questions on the 2011 AESC report.

On September 16, 2011, Associated Industries of Vermont ("AIV"), the City of Burlington Electric Department ("BED"), and Vermont Energy Investment Corporation ("VEIC") filed comments on the Department's proposed avoided costs. On September 19, 2011, Green Mountain Power Corporation ("GMP") filed comments.

On September 23, 2011, the Department and VEIC filed reply comments on the proposed avoided costs.

On September 26, 2011, the Department, BED, Central Vermont Public Service Corporation ("CVPS"), GMP, VEIC, and Vermont Electric Power Company, Inc. ("VELCO"), jointly filed a proposal addressing the T&D component of avoided costs.

III. PARTICIPANTS' POSITIONS

A. AVOIDED COSTS

The Department recommends that the Board adopt the avoided costs as presented in the recently completed AESC final report, for all fuels contained in the report. The avoided cost projections that the Department recommends the Board adopt were customized for Vermont based on the regional avoided cost analysis. The Department also proposes that the 2011 AESC peak day avoided costs for natural gas be modified to include the avoided cost of increasing the transmission capacity of Vermont Gas's system; this modification is consistent with the methodology developed in the collaborative process in Docket 5270-VGS, and used by Vermont

3. Workshop participants' filings and the 2011 AESC Report are available on the Board's website at: <http://psb.vermont.gov/docketsandprojects/eeu/avoidedcosts/2011>.

Gas since that time.⁴ The avoided wholesale energy and capacity costs are located in Appendix B: VT (columns a through g, page B-27). The avoided costs for natural gas are located in Appendix D: VT of the AESC report and the Department's August 30 filing includes a modified Appendix D to include the avoided cost of transmission expansion. The avoided costs for fossil fuels and other fuels are located in Exhibit E-1 (page E-2).

VEIC recommends that the Board adopt the values for avoided energy costs in the AESC report proposed by the Department. BED and GMP contend that avoided energy costs currently traded in the forward energy market are lower than those contained in the AESC report. GMP finds the difference to be "acceptable" for use in efficiency screening until the next updated AESC. BED proposes using prevailing forward contract prices for any period for which they are available,⁵ displacing AESC reported costs. BED notes that the scope of work for the AESC study assumes no future energy efficiency investments, and suggests that the assumption likely overstates the market's awareness of Vermont's (or regional) efficiency activities on market energy prices. AIV believes that there are a number of reasons, including the concerns raised by BED and GMP, to assume that the avoided costs being recommended by the Department are "unreasonably and unjustifiably high, and that to adopt them would have negative consequences for ratepayers."

In its reply comments, the Department indicates that the AESC study employed a market simulation which is intended to estimate the costs for power in the absence of any energy efficiency program. The Department contends that while this scenario is not likely to occur, the effort simulates the true avoided costs of efficiency investment and is more appropriate for determining the avoided costs of energy from efficiency investments than the futures prices that include assumed effects of efficiency. The Department recognizes that there are many differing opinions regarding future electric prices, including different expectations regarding the price and

4. The Department asserts that adding downstream transmission costs to the AESC peak day cost appropriately reflects that Vermont Gas is a growing utility and still has a need to expand its transmission system to meet peak day requirements as new customers are added.

5. BED notes that forward contract prices are available out to 2016. The final AESC report forecasts energy prices out to 2041.

availability of natural gas which is one key input into electric price forecasts, and given this uncertainty, the Department maintains that its avoided cost estimates are reasonable.

B. ENVIRONMENTAL EXTERNALITY ADJUSTMENTS

The Department recommends the use of environmental externality adjustments contained in the AESC report. The externality adjustments are located in Appendix B: VT (columns r through u, page B-27), Exhibit 4-26 (values reported under "CO₂ at \$80/ton", page 4-41), and Exhibit E-4 (values reported under "CO₂ at \$80/ton", page E-5).

BED and VEIC support the use of environmental externality adjustments when screening the cost-effectiveness of efficiency measures. BED further states that it does not support the use of externality adjustments when determining the level of efficiency budgets. AIV asserts that it is not appropriate "to use any externality cost that is not expected to be included directly in the cost of electricity, either through rates or bill add-ons," and given the foreseeable political and economic environment, it is not realistic to assume the cost of CO₂ abatement related to federal action as part of the assessment of future energy costs.

In its reply comments, the Department contends that while efficiency budgets are set independently of screening tool decisions, avoided costs, including externalities, are integral in developing estimates of reasonably available cost-effective energy efficiency potential. The Department adds that these estimates of efficiency potential in turn support budget estimates needed to acquire this potential.

With regard to the concerns raised by AIV, the Department asserts that the Board has already settled the issue with regard to the use of externality adjustments in Docket 5270, in which the societal test was determined to be appropriate for screening efficiency measure in Vermont, and Docket 5980, which adopted the societal test for use by EEU's. The Department contends that the avoided carbon equivalent abatement cost is a societal cost that is avoided by the acquisition of energy efficiency resources, and if costs associated with avoiding greenhouse gas emissions are not properly counted in screening of efficiency measures, then the State is at danger of significantly under-investing in energy efficiency which would add to the economic burden of all ratepayers. The Department states that, while federal action with regard to carbon

emissions controls is uncertain, the issue is moot for purposes of this proceeding. The Department notes that a portion of carbon abatement costs are already internalized into rates via the costs associated with the Regional Greenhouse Gas Initiative ("RGGI"). The Department further notes that if federal legislation does pass, then a greater portion of the recommended value will be internalized, and the remaining externality will be lowered, and if no federal legislation occurs, then a larger portion of carbon abatement costs are accounted for via externalities. Thus, the total abatement cost that is counted for purposes of screening does not change.

C. T&D COMPONENT

In the September 26 filing, workshop participants recommended that the current T&D component of avoided costs should be updated and that a stakeholder group should be created to evaluate and select a methodology for developing and updating avoided costs. In the interim, the workshop participants propose that the current T&D avoided cost value be used until this working group has an opportunity to develop updated recommendations. The Department proposes to lead an informal working group to attempt to develop a consensus T&D avoided cost proposal for the Board's consideration, with the goal of incorporating the T&D component of avoided costs into the cost-effectiveness screening tool no later than January 1, 2013.

The workshop participants also agree to consider the usefulness and implications of whether there should be multiple T&D avoided cost values or a single statewide value. As part of the working group's functions, the workshop participants propose that the Department and VEIC develop a written analysis of the programmatic implications of administering a program with varying avoided costs in different geographic areas of the state. The workshop participants propose that this analysis be filed with the Board along with any recommendations of the group. The workshop participants also propose that a status update be filed with the Board by January 31, 2012, updating the Board on the working group's progress and proposed next steps.

IV. DISCUSSION AND CONCLUSIONS

We accept the Department's recommendations and adopt its proposed updated avoided energy and capacity costs, as well as the end-use avoided costs for natural gas and other fuels, for screening programs and measures by the EEUs. The avoided costs we adopt include the capacity and energy prices identified in Appendices B, D, and E of the 2011 AESC final report, as described above. (Appendix A to this Order contains a copy of the avoided costs that we approve today.)

We recognize that Vermont electric distribution utilities, when planning for future power supplies, may rely on avoided energy costs currently traded in the forward energy market which are lower than those contained in the AESC report. The Department indicated that the difference in costs were likely due to the AESC study employing a market simulation which is intended to estimate the costs for power in the absence of any energy efficiency programs. While we accept the Department's proposed avoided costs for screening programs and measures by the EEUs, we intend to review whether it is appropriate to use different avoided cost methodologies for energy efficiency decisions and for electric power supply resource acquisition decisions the next time we consider updated avoided costs. We are relying on the Department to address these differences as part of the next biennial update of avoided costs.

We accept the Department's recommendations and adopt its proposed environmental externality adjustments for screening programs and measures by the EEUs. The externality adjustments we adopt include the costs identified in Appendix B, Exhibit 4-26, and Exhibit E-4 of the 2011 AESC final report, as described above. (Appendix A to this Order contains a copy of the externality adjustments that we approve today.)

We recognize that the issues surrounding externality adjustments are closely linked to potential federal efforts to address carbon, regional efforts through RGGI, and our evolving understanding of the cost associated with greenhouse gas emissions, particularly carbon. The pre-existing externality adjustments were adopted in Docket 5980, over 10 years ago. The Department has recommended a reasonable approach for determining updated externality

adjustments, and no workshop participant proposed an alternative methodology.⁶ Given the uncertainty with regard to future carbon regulation, we intend to incorporate a review of the externality adjustments as part of the biennial update of avoided costs.

We accept the workshop participants' recommendation with regard to the T&D component of avoided costs. Therefore, we expect the Department to lead a working group to attempt to develop a consensus T&D avoided cost proposal for the Board's consideration, with the goal of incorporating the T&D component of avoided costs into the cost-effectiveness screening tool no later than January 1, 2013. VEIC and the Department are to develop a written analysis of the programmatic implications of administering a program with varying avoided costs in different geographic areas of the state. This analysis is to be filed with the Board along with any recommendations for the T&D component of avoided costs.

The workshop participants shall file a status update by January 31, 2012, on the working group's progress and proposed next steps. We direct Board staff to conduct additional proceedings with regard to proposals for the T&D component of avoided costs. These proceedings may include a workshop, scheduled after the January 31 filings, to discuss any proposals for the T&D component of avoided costs and the opportunity for workshop participants to file written comments. In addition, any schedule changes to these workshop proceedings shall be determined by Board staff.

V. ORDER

IT IS HEREBY ORDERED, ADJUDGED AND DECREED by the Public Service Board ("Board") of the State of Vermont that:

1. The avoided energy and capacity costs and the end-use avoided costs for natural gas and other fuels for screening programs and measures by the Energy Efficiency Utility ("EEUs") shall be those shown in Appendix A to this Order.
2. The environmental externality adjustments for screening programs and measures by the EEUs shall be those shown in Appendix A to this Order.

6. While AIV objects to the use of externality adjustments, 30 V.S.A. § 218c(a)(1) requires the examination of environmental costs in least cost integrated planning.

3. The Board will determine whether the transmission and distribution ("T&D") component of avoided costs for screening programs and measures by the EEU's shall be updated after being informed by additional workshop proceedings. Workshop participants may develop a consensus T&D avoided cost proposal for the Board's consideration, with the goal of incorporating the T&D component of avoided costs into the cost-effectiveness screening tool no later than January 1, 2013.

4. Vermont Energy Investment Corporation shall work with the Department of Public Service to develop a written analysis of the programmatic implications of administering a program with varying avoided costs in different geographic areas of the state. This analysis shall be filed with the Board along with any recommendations for the T&D component of avoided costs.

5. The workshop participants shall file a status update by January 31, 2012, updating the Board on the working group's progress and proposed next steps with regard to the T&D component of avoided costs.

6. Board staff shall conduct additional proceedings with regard to any proposals for the T&D component of avoided costs. These proceedings may include a workshop, scheduled after the January 31 filings, to discuss any proposals for the T&D component of avoided costs and the opportunity for workshop participants to file written comments. Any schedule changes to these workshop proceedings, or to the date for filing the status update set in paragraph 5 above, shall be determined by Board staff.

Dated at Montpelier, Vermont, this 17th day of October, 2011.

<u>s/James Volz</u>)	
)	PUBLIC SERVICE
)	
<u>s/David C. Coen</u>)	BOARD
)	
)	OF VERMONT
<u>s/John D. Burke</u>)	

OFFICE OF THE CLERK

FILED: October 17, 2011

ATTEST: s/Judith C. Whitney
Deputy Clerk of the Board

NOTICE TO READERS: This decision is subject to revision of technical errors. Readers are requested to notify the Clerk of the Board (by e-mail, telephone, or in writing) of any apparent errors, in order that any necessary corrections may be made. (E-mail address: psb.clerk@state.vt.us)